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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,502	09/26/2003	Takayuki Ito	26A-010	8625

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EXAMINER

HUSON, MONICA ANNE

ART UNIT PAPER NUMBER

1732

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,502

Applicant(s)

ITO ET AL.

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-23 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-23 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the RCE filed 31 July 2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-23 and 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka et al. (U.S. Patent 5,628,944). Regarding Claim 21, Nagasaka shows that it is known to carry out a method for manufacturing a molded product having a molded portion (Abstract), the method comprising forming a releasing agent layer adhered to a wall surface of a cavity of a mold that is in a closed state by injecting a first liquid containing a releasing agent into the cavity and depressurizing the cavity to a pressure at which the solvent boils wherein the depressurizing includes vaporizing the solvent in the closed cavity and evacuating the vaporized solvent from the closed cavity (Column 7, lines 21-47, 63-67; Column 8, lines 1-8); and forming the molded portion by supplying a molding material into the cavity after the releasing agent is formed (Column 7, lines 48-62).

Regarding Claim 22, Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, including a method wherein the depressurization of the cavity is performed immediately before the injection of the releasing agent ends or after the injection of the releasing agent ends (Column 7, lines 21-31).

Regarding Claim 23, Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show injecting the releasing layer when depressurizing the cavity. Nagasaka shows that it is known to carry out a method wherein the releasing agent is injected when depressurizing the cavity (Column 1, lines 55-60; Column 2, lines 4-6; It is noted that when the surface layer contains a releasing agent, the releasing agent is injected when depressurizing the cavity.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's release layer molding method during Nagasaka's process in order to insure a flawless demolding sequence.

Regarding Claim 26, Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show specifically molding a surface layer. Nagasaka shows that it is known to carry out a method including forming a surface layer on the wall surface of the cavity by injecting a second liquid containing material of the surface layer into the cavity and depressurizing the cavity (Column 1, lines 55-67; Column 2, lines 6-9; Column 7, lines 32-36). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's surface layer molding step during Nagasaka's molding process in order to enable the formation of widely-varied decorative objects.

Regarding Claim 27, Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show insert molding. Nagasaka shows that it is known to carry out a method wherein the molded product is an insert molded product including an insert member occupying at least part of the molded product (Column 1, lines 20-21). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's insert molding process during Nagasaka's molding process in order to enable the formation of widely-varied decorative objects.

Regarding Claim 28, Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not specifically show measuring an amount of molding material. Nagasaka shows that it is known to carry out a method wherein the injection of the first liquid includes injecting a previously measured amount of the first liquid into the cavity (Column 7, lines 32-35). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's measuring step during Nagasaka's molding process in order to avoid overfilling or underfilling the mold cavity.

Regarding Claim 29, Nagasaka shows that it is known to carry out a method for manufacturing a molded product using a mold having a cavity (Abstract), the method comprising the steps of closing the mold (Column 7, lines 21-23); injecting a first liquid including a releasing agent and a solvent that vaporizes under a reduced pressure into the closed cavity (Column 7, lines 2-31); forming a layer of the releasing agent adhered to the entire surface of the closed cavity by depressurizing the cavity to a pressure at which the solvent vaporizes, wherein the depressurizing includes vaporizing the solvent in the closed cavity and evacuating the vaporized solvent from the closed cavity (Column 7, lines 21-47, 63-67; Column 8, lines 1-8); and supplying molding material to the cavity after the releasing agent layer is formed to form the molded product (Column 7, lines 48-62).

Regarding Claim 30, Nagasaka shows the process as claimed as discussed in the rejection of Claim 29 above, but he does not specifically show measuring an amount of molding material. Nagasaka shows that it is known to carry out a method wherein the injection of the first liquid includes injecting a previously measured amount of the first liquid into the cavity (Column 7, lines 32-35). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's measuring step

during Nagasaka's molding process in order to avoid overfilling or underfilling the mold cavity.

Regarding Claim 31, Nagasaka shows the process as claimed as discussed in the rejection of Claim 29 above, but he does not show specifically molding a surface layer. Nagasaka shows that it is known to carry out a method including forming a surface layer on the wall surface of the cavity by injecting a second liquid containing material of the surface layer into the cavity and depressurizing the cavity (Column 1, lines 55-67; Column 2, lines 6-9; Column 7, lines 32-36). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Nagasaka's surface layer molding step during Nagasaka's molding process in order to enable the formation of widely-varied decorative objects.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka, in view of Farber (U.S. Patent 3,768,232). Nagasaka shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show recovering the solvent. Farber et al., hereafter "Farber," show that it is known to recover the solvent vaporized in a process (Column 1, lines 33-35) and reuse the recovered solvent as the solvent in a subsequent process (Column 3, lines 16-17). Farber and Nagasaka are combinable because they are concerned with a similar technical field, namely, processes which involve the vaporization of solvents. It would have been prima facie obvious to one of


ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Nagasaka's molding process in order to reduce operating costs using recycling.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 6:45am-3:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

September 18, 2006